

ABSTRACT OF THE DISCLOSURE

A method and device are provided, for locating a user of a mobile terminal, for forming a set of cells for time difference measurements for a mobile terminal camped on a first cell of a cellular network and being in idle mode, the method including the steps of: receiving a first set of cell identifiers of neighboring cells for the first cell, with each of the neighboring cells sending a radio signal on synchronization channels; and measuring the received signal strength for cells having identifiers which are included in the first set, with a number N of cells having a signal strength exceeding a predefined threshold constituting a set of available cells; wherein the improvement includes the steps of: reading the synchronization channels for the set of available cells, thereby measuring time differences for the set of available cells; and selecting a second set from the set of available cells using a predefined selection rule, the second set including $M < N$ cells, thus forming a new set of cells for time difference measurements.